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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,347	06/23/2003	Samuel D. Conzone	SGW-155	7211
23599	7590	05/24/2005	EXAMINER	
MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201			KEEHAN, CHRISTOPHER M	
			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/600,347	CONZONE ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Christopher M. Keehan	1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 19 March 2005.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-88 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-34, 60 and 62-78 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date: _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Examiner's Comments***

In the previous office action, claims 3, 4, 8-18, 23, 25-32, 34, 62, 65, 66, and 70-72, and 74-78 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, upon further reflection, it appears that some of these claims read on the prior art. Therefore, the allowability of some of these claims has been withdrawn and the claims have been set forth as set forth below. The examiner regrets any inconvenience this might have caused applicant.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-34, 60, and 62-78 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant claims "a low self-fluorescent substrate" but does not define it.

Is self-fluorescence a characteristic that is present upon exposure to electromagnetic radiation outside visible light or can it be present in the visible light? What is considered low and not low?

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-34, 60, and 62-78 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what is meant by the term "low self-fluorescent".

Further, claim 73 recites the limitation "An array" in claim 63. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5-7, 10, 19-21, 24, and 60 are rejected under 35 U.S.C. 102(b) as being anticipated by Oviatt, Jr. et al. (hereinafter Oviatt et al.) (4,746,751). Regarding claims 1, 2, 24, and 60, Oviatt et al. disclose a surface comprising a substrate and a

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coating thereon of a homogeneous mixture of a fluorescently labeled and a first chemical functional compound (Abstract and col.6, lines 51-61). Regarding claim 24, although Oviatt et al. do not appear to specifically disclose wherein the fluorescent-labeled compound does not affect biofunctional properties of the coated bioarray, as the same materials are present in Oviatt et al. as claimed by applicant, it appears this characteristic is inherently disclosed.

Regarding claims 5-7, 10, Oviatt et al. disclose a fluorescent-labeled compound as claimed (col.2, line 67-col.6, line 32).

Regarding claims 19-21, Oviatt et al. disclose amounts included in the ranges as instantly claimed (col.8, Example IV).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 22, 63, 68, and 69 are rejected under 35 U.S.C. 102(b) as being anticipated by Atwater et al. (5,280,548). Atwater et al. disclose a surface comprising a substrate and a coating thereon of a homogeneous mixture of a fluorescently labeled compound and a first chemical functional compound or hydrogel polymer (Abstract).

Claims 1, 2, 22, 24, 63, and 67-69 are rejected under 35 U.S.C. 102(b) as being anticipated by Leiner et al. (5,114,676). Leiner et al. disclose a surface comprising a substrate and a coating thereon of a homogeneous mixture of a fluorescently labeled compound and a first chemical functional compound or hydrogel polymer (col.3, lines 59-64 and col.4, lines 40-58).

Regarding claim 24, although Leiner et al. do not appear to specifically disclose wherein the fluorescent-labeled compound does not affect biofunctional properties of the coated bioarray, as the same materials are present in Leiner et al. as claimed by applicant, it appears this characteristic is inherently disclosed.

Claims 1, 2, 22, 24, 63, 64, 68, and 69 are rejected under 35 U.S.C. 102(b) as being anticipated by Tomisaka et al. (5,056,520). Tomisaka et al. disclose a surface comprising a substrate and a coating thereon of a homogeneous mixture of a fluorescently labeled compound and a first chemical functional compound or hydrogel polymer (Abstract), more specifically a hydrogel comprising amine groups (col.1, line 61-col.2, line 20).

Regarding claim 24, although Tomisaka et al. do not appear to specifically disclose wherein the fluorescent-labeled compound does not affect biofunctional properties of the coated bioarray, as the same materials are present in Tomisaka et al. as claimed by applicant, it appears this characteristic is inherently disclosed.

Claims 1, 2, 3, 6, 10, 19-22, 24, and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Haruvy et al. (5,357,015). Regarding claims 1, 2, 22, and 33, Haruvy et al. disclose a surface comprising a substrate (col.7, lines 33-48) and a coating thereon of a homogeneous mixture of a fluorescently labeled and a first chemical functional compound (col.4, lines 3-34). Regarding claim 24, although Haruvy et al. do not appear to specifically disclose wherein the fluorescent-labeled compound does not affect biofunctional properties of the coated bioarray, as the same materials are present in Haruvy et al. as claimed by applicant, it appears this characteristic is inherently disclosed.

Regarding claim 3, Haruvy et al. disclose a glass substrate (col.7, lines 40-42). It is not clear why this glass substrate is not also low-self fluorescent glass.

Regarding claims 6 and 10, Haruvy et al. disclose an organosilane, more specifically an alkylalkoxysilane of methyltrimethoxysilane (col.8, line 42).

Regarding claims 19-21, Haruvy et al. disclose the amounts as instantly claimed (Table 3).

### ***Claim Rejections - 35 USC § 103***

Claims 4 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haruvy et al. (5,357,015) in view of Glasstopia (pages 1 and 2, obtained from [glasstopia.com](http://glasstopia.com)). Haruvy et al., as applied above, are as set forth and incorporated herein. Regarding claims 4 and 25, Haruvy et al. do not appear to specifically disclose a glass substrate as claimed. Glasstopia discloses that soda-lime silicate glass and

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borosilicate glass are commonly known and used types of glass (pages 1 and 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a glass substrate as taught by Glasstopia in the article of Haruvy et al. because Glasstopia teaches that these types of glasses are commonly used in industry.

### ***Response to Arguments***

Applicant's arguments with respect to the rejections as set forth in the previous office action have been considered. Applicant has amended independent claims 1, 60, and 60 to include the limitation "self-fluorescent", and noted that because claim 3 was indicated as containing allowable subject matter in the last office action, the amended claims should therefore also be allowable. It should be noted that applicant did not include all of the limitations of claim 3 into the independent claims, as claim 3 is drawn to a self-fluorescent glass substrate. Regardless, these claims have been treated as set forth above.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Keehan whose telephone number is (571) 272-1087. The examiner can normally be reached on Monday-Friday, from 6:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher Keehan *CK*  
May 19, 2005 DAVID J. BUTTNER  
PRIMARY EXAMINER

*David Buttner*